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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,868	06/29/2001	Thomas D. Fletcher	2207/11272	6555

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EXAMINER

NGO, CHUONG D

ART UNIT PAPER NUMBER

2193

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/893,868	Applicant(s) FLETCHER, THOMAS D.	
	Examiner Chuong D. Ngo	Art Unit 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 08 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-17,19-25,27-33 and 35-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-15,21-25,27-33 and 35-38 is/are allowed.
- 6) ☐ Claim(s) 1,5,6,9,16,17,19 and 20 is/are rejected.
- 7) ☒ Claim(s) 4,7 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

the recitation “the second evaluation block”, line 3, and “the first evaluation block”, line 6, lack proper antecedent basis. Claim 9 should be a dependent of claim 7.

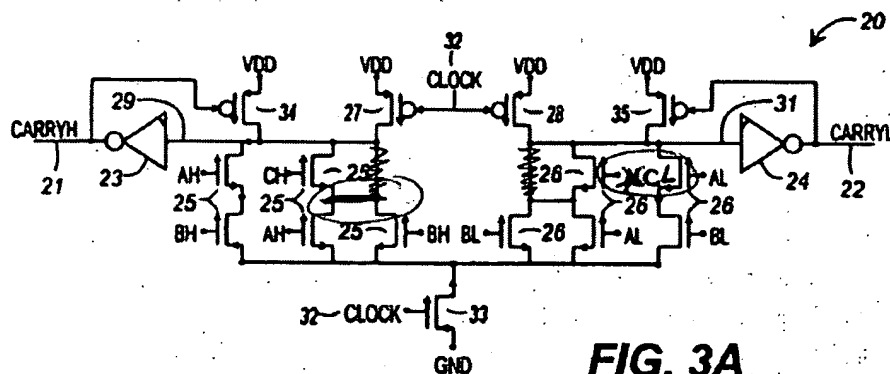
2. Claims 1,5 and 6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Earle (3,340,388).

As claim 1, Earle discloses in figure 2 a circuit including a first 3:2 reducer and a second 3:2 reducer directly connected to the first 3:2 reducer, a first clock signal (32) connected to the first 3:2 reducer, a second clock signal (42) that is connected to the second 3:2 reducer. The second clock signal is the same as a clock signal that is half cycle delayed for the first clock signal as claimed.

As per claims 5 and 6, Earle also discloses two set-reset latches (39,40), and a symmetric carry generate gate ( figure 44).

3. Claims 16,17,19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winters et al. (6,466,960) in view of Jouppi (6,065,033) and Plennings (4,667,303).

As per claims 16,17,19, 20, Winters et al. discloses in figures 1 and 3, a circuit having three true inputs and three complement inputs (A,B,C) a differential XOR gate (figure 3B) and a differential carry generated gate (figure 3A), and a first transistor (33) connected to the ground. It should be noted that figure 3A contains obvious errors in the connections of middle transistors 25 and 26 (corresponding to the claimed third and eighth transistors) to the other transistors 25 and 26 for implementing a carry generation that has a well-know logic function  $AB + AC + BC$  as shown in figure 1 of Jouppi. In addition, Plennings discloses in figure 5 a carry generating circuit (50C) that shows a correct connections between transistors corresponding to transistors 25 and 26 of Winter et al. (transistors that connected to A,B,D and there invert) for implementing the carry logic function  $AB + AD + BD$ . Therefore, it would have been obvious to a person of ordinary skill in the art to make the corrections on the circuits in figure 3A of Winters et al as shown in Plennings in order to correctly generate a carry signal. The correction would clearly result in the same differential carry generate gate as claimed, and as illustrated below.



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4. Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 10-15,21-25,27-33 and 35-38 are allowed.

6. Applicant's arguments filed on 05/08/2006 have been fully considered but they are not persuasive.

Regarding claims 1,5 and 6, it is respectfully submitted that the inverse of a clock signal is the same as the clock signal being delayed by half cycle. the clock signal as disclose by Earl is effective during the first half of the a machine cycle and the inverse of the clock signal is effective during later half of the cycle (col.3 lines 36-53).

Applicant's arguments with respect to claims 16,17,19 and 20 have been considered but are moot in view of the new ground(s) of rejection.

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong D. Ngo whose telephone number is (571) 272-3731. The examiner can normally be reached on Tuesday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

07/25/2006



Chuong D Ngo  
Primary Examiner  
Art Unit 2193